REMARKS

Claims 1-10 are pending in this application. Claims 4-6 and 9-10 have been canceled without prejudice or disclaimer. Claims 1 and 8 have been amended. Accordingly, claims 1-3, 7 and 8 are pending. No new matter has been added.

Claim Rejections under 35 U.S.C. §102 and §103

Reconsideration of the rejection of claims 1, 2 and 8-10 under 35 U.S.C. § 102(e) as being anticipated by Block, U.S. Patent Publication No. 2005/0021751 is respectfully requested. The rejection of claims 4-6 and 9-10 under 35 U.S.C. § 103(a) has been rendered moot by the cancellation of the claims without prejudice or disclaimer. Reconsideration of the rejections of claims 3 and 7 is also requested, which have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Block in view of Espy, U.S. Patent No. 6,128,750 (claim 3); and over Block in view of Ma, U.S. Patent Publication No. 2005/0154625 (claim 7).

Independent claims 1 and 8 set forth a switch and a method of transferring a frame in a switch which is effective when trouble is detected in a (first) communication line. In particular, according to amended claim 1, the switch has interfaces, each having a management table connected to an internal switch connecting the interfaces together. A first interface receives a command from the computer, records an identifier identifying the command in a storage unit that the switch is connected to, and transfers the command to the storage unit through the first communication line. Then, the first interface detects, in response to the command transferred to the storage unit, a trouble occurring in the first communication line, records a presence or an absence of a data transfer upon the command with the recorded identifier, and transmits, if a presence of a data transfer has been recorded, a frame for noticing an error of the received command to the computer. Thereafter, a command to be received from the computer is transferred to the storage unit through a second communication line of the plurality of communication lines. Independent claim 8, which is directed to a method of transferring a frame in a switch connected with a storage unit and a computer, has been similarly amended.

Claims 1 and 8 are directed to the second embodiment of the application. See Fig. 15, and in particular the data transfer start flag 3302 in the command management table shown in the figure and the discussion on pages 40-41 of the specification. For a command on which the data transfer is not still started (because of trouble occurring), the virtualization switch 302 retransmits the command to the other SAN address of the storage unit 104 without giving back an error response to the host 105. This makes it possible to reduce the number of commands to be retried by the host 105. Block does not disclose or suggest the invention as claimed in amended claims 1 and 8.

Block discloses , in Fig. 1, a computer system 10 including a plurality of nodes interconnected with one another in a distributed manner. Nodes 12, 14 and 16 are coupled together via a network 18. Disposed in each node 12, 14, 16 is one or more network connections 20 that couple the respective node to network 18 via separate connection paths 22. As a result, multiple logical connections may be made between any pair of nodes, enabling both connection redundancy and failover (to recover from a failed connection), according to Block. A cluster data port is able to selectively and dynamically choose among a plurality of connection paths 22 between the source node 12 and any of the nodes 14, 16, and is able to selectively and dynamically switch over data flow from primary target node 14 to a backup primary node 16, effectively substituting the backup target node 16 as the new primary target node.

However, the data port of Block is not equivalent to the claimed first interface of the present invention which receives a command from the computer, records an identifier identifying the command in a storage unit that the switch is connected to, and transfers the command to the storage unit through the first communication line. Then, the first interface detects, in response to the command transferred to the storage unit, a trouble occurring in the first communication line, records a presence or an absence of a data transfer upon the command with the recorded identifier, and transmits, if a presence of a data transfer has been recorded, a frame for noticing an error of the received command to the computer. Thereafter, a command to be received from the computer is transferred to the storage unit through a second communication line of the plurality of communication lines. Accordingly, Block does not

disclose the invention as claimed in independent claims 1 and 8 and claim 2, which depends from claim 1.

Epsy is relied upon in the rejection of claim 3 and Ma is relied upon in the rejection of claim 7. Epsy is relied upon for disclosing dealing with a cut-out of a physical connection in a network. Ma is relied upon for disclosing a virtual memory in a switch. However, neither reference makes up for the above noted deficiencies in Block with respect to the claimed combination of the invention set forth in base claim 1, from which claims 3 and 7 depend. Therefore, the combination of Block and Epsy or Block and Ma does not render the invention of claims 3 and 7 obvious under 35 U.S.C. § 103(a) and the rejections should be withdrawn.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

By _____
John R. Mattingly
Reg. No. 30,293
(703) 684-1120

JRM/so
Date: September 30, 2005